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AIR FORCE DENTISTRY AT A CROSSROADS

by

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Preface

I have spent twenty-two years in the United States Air Force Dental Service. I have received excellent training to support my duties and have been a part of what honestly amounts to a world class dental treatment organization. I believe there are identifiable aspects of the Dental Service culture that have contributed to its success. The product is one that is worth sustaining. During a three year assignment at Air Staff, it became clear to me that the Dental Service was at risk from a number of directions, mostly by those that did not understand or those driven by economic motives. In this paper I have attempted to describe the organization and its value to the men and women of the Air Force. For the money minded I have tried to describe the value of a uniformed dental service in strictly economic terms. Just before his retirement, Gen. "Andy" Anderson, AF Surgeon General, said to the AF Dental Service at the 1995 AMSUS, "they won't know how great you are until you are gone...." No one would benefit from that outcome and I hope this research will be preventive of that result.

This could not have been possible without the support of the HQ/SGD staff. I thank Brig. General Almquist for his support and encouragement. This could not have been accomplished without help from his staff: Mrs. Shirly Pilzak, Mr. Rick Berg, Col. Susan Smythe and Col. Gerard Caron. Dr. Caron's efforts were invaluable as he helped locate information and always provide excellent council.

Abstract

To the Air Force Dental Service: " *They won't know how great you are until you are gone...*", General Anderson, Air Force Surgeon General. Military dentistry is at a crossroads as DoD searches for was to reduce military manpower costs through down sizing and outsourcing. This paper evaluates the early results of outsourcing tests and compares them to the accomplishments of the Dental Service.

Three outsourcing projects were evaluated: 1. A fixed price contract was awarded to a civilian corporation to treat approximately 2000 active duty members at the Buckley Clinic in Denver Colorado with on-sight oversight by an Air Force dental officer and two technicians; 2. A 22 civilian preferred provider organization was established at Tinker AFB to provide broad spectrum referrals from the base clinic during protracted resource manpower and; 3. A limited referral contract was let at Robins AFB to supplement care during manpower shortfalls. Very intensive oversight was required to establish and manage the programs. Loss of control of quality and costs could result from unsupervised referrals. Off base care is more costly in patient access time and civilian reexamination and frequent additional radiographic evaluation. In one case civilian billing was suspected of being inaccurate or possibly fraudulent, and is under legal investigation.

The Air Force Dental Service has implemented the AF Dental Readiness Assurance Program, the Clinical Performance Assessment and Improvement Program and a robust

program of continued education to deliver quality care and effective patient access. Numerous programs like modernized data management, closure and consolidation of inefficient laboratories, and dental demographic studies have contributed to dramatic improvements in dental business practices. In FY 96 the Dental Service improved business practices resulted in a $5.3 million annual increase in government cost avoidance when compared to average civilian fees for comparable service. The accomplishments are significant but it is most important that they describe a culture within the Dental Service built on accountability, service, excellence and integrity. If sustained the Dental Service will insure that the right things are done for the Air Force with best value care for world wide readines.

Chapter 1

Introduction to the Air Force Dental Service

" they won't know how great you are until you are gone...."

— General Anderson

Military dentistry is at a crossroads. After a long history of success, Air Force Dentistry finds itself with a comparatively small deployment mission and great pressure to be the best value alternative to outsourcing or privatization. As movements with in DoD to down size and outsource affect many support functions in the military, the Air Force Dental Service has started to make business based decisions. Multiple dental outsourcing test projects have been initiated. It is the purpose of this paper to evaluate the outsourcing tests against the offerings of the Dental Service and validate existing strategies to provide for the dental health of the Air Force.

The Dental Service has achieved a great deal and it is important to describe the accomplishments and existing capabilities in order to assess value during business discussions. It will also be necessary to describe the environment, both business and political, to identify threats as well as opportunities. Ultimately this information should be a foundation that will lead to an on going best business strategy that will sustain quality care, accountability and service to the Air Force beneficiaries.

Chapter 2

The Threat: Outsourcing and Privatization

Since 1990 the Department of Defense (DoD) force structure and budget have decreased by one-third. The operations and maintenance(O&M) portion has decreased by only 17% and now represents about 36% of the DoD budget. Force modernization comes from procurement accounts that have decreased from 27% to 16% of the budget. Greater reductions are likely in DoD budgets as it becomes more difficult to define the military threat, as entitlements grow and as political leaders respond to public opinion. Pressure will continue to grow to find ways to support efficient operations in order to find money for modernization.

DoD planners are looking at a range of options to reduce O&M costs, in order to free resources to apply toward modernization but *Outsourcing* and *Privatization* are receiving the most interest. Outsourcing is the transfer of in-house support functions to outside suppliers - the Air Force retains full control and responsibility. Privatization transfers assets, control and ownership of a function to the private sector. Both processes hold the promise of delivering some of the savings needed but only if the cost of the outside service is less than providing the service organically and if there is little risk of degraded service.[1]

There are number of likely reasons that the Air Force Dental Corps finds itself a target of outsourcing and/or privatization. One reason is that most dental needs appear clinically long before they cause patient problems, so annual exams and preventive treatment intercept problems and represent the methods of operation of quality care. This lowers the needs for care during contingencies and decreases requirements for deployed dentists. Another reason that dentistry is a target for privatization is its cultural position in the Air Force Medical Service. Dentistry operates as a product line largely separate from medicine, nursing and medical care administration. Dentistry is managed by AF dentists and enlisted dental technicians with only occasional interface with those that support medical care. This seems to have lead to a tendency for those outside of dentistry to underestimate the success and importance of dentistry and naturally value more highly the things they know and have experienced. Often decisions about dentistry are made based on inapplicable medical experiences and paradigms. Consequently, most of the Medical Service does not object to the outsourcing or privatization of dentistry and may even look at it as somewhat protective of the interests they know and value. As the Medical Service sets a goal to reduce manpower by 13.9% or more by 2006 the threat becomes very clear.[2]

It is the purpose of this document to compare the military run Air Fore Dental service with existing outsourcing and experiments at Buckley Clinic in Denver, Colorado and two experiments in Air Force Material Command - Robins AFB and Tinker AFB. The comparison will be based on quality and cost in general, as can best be reflected by known activities that could affect those important parameters. More information is known, and will be presented, about the Air Force Dental Service than the relatively

newly initiated outsourcing projects. It will be necessary to rely on trends and some assumptions about the tendencies of private enterprise to evaluate the outsourcing examples and compare them with Air Force dentistry.

Notes

[1], Alex M. Milford & Houston S. Sorenson, "Outsourcing-determining the 'Hurdle Cost' " *Air Force Journal of Logistics*, AFRP 25-1, Vol. XXI No.2 (Spring '97): 22.

[2] Col. Laurie Matiasevich Jr., AF Director of Dental Services, address to Air Force Dental Service Program at American Military Surgeons of the United States meeting, Nashville, TN, 16 Nov '97.

Chapter 3

Air Force Dentistry Competes

The US Air Force Dental Corps as a "business choice" will be presented chronologically beginning with responses to the 1993 Air Force Audit through current business improvements and strategies. Without apology, the chronological build was selected in an attempt to demonstrate organizational responses by the Dental Service that describe an organization built on more than loyalty to profit. Some intangible characteristics may emerge that can appreciated by a parent organization that values integrity, service and excellence. If not that grand, these intangibles should be at least recognized as different from *the Profit Motive*. Efficient and effective use of precious funds will not be left out as an important organizational characteristics and Dental Service efforts towards those ends will be fully developed here.

Air Force Audit

On December 15, 1993 the Air Force Audit Agency submitted a report of audit of selected aspects of dental clinic management. This was both good and bad for the Dental Service but mostly negative for family member and retired dental beneficiaries. The audit was accomplished in fiscal year 1992 when the Dental Service recorded more than 2 million patient visits by active duty members, and 1.2 million patient visits for family

members and retired beneficiaries. The audit objectives as stated were to evaluate effectiveness of selected aspects of dental clinic management.

In some ways the results of the audit validated many Dental Service business strengths. It was found that dental personnel managed the clinic operations effectively. Dentists were efficiently utilized, equipment was accurately accounted for, the appointment system was well managed, and dental care data were accurately entered into the Dental Data System (on-line system used for productivity tracking and quality assurance.) On the other hand the audit had some strong business recommendations. It was found that considerable savings could be realized by AF wide same day cleaning and examination appointments. At the time of the audit this appointment procedure was not widely accomplished for non- rated personnel. The most painful recommendation was based on the observation that almost one-fourth of the care delivered was provided to family members and retired beneficiaries. It was acknowledged that some of the cases were approved teaching cases and over seas family care, but the mission was to treat the active duty and it was clear to the auditors that the Dental Service was over manned by 122 dentists and 207 support personnel.[1]

The Dental Service agreed with the findings in principal but was saddened by the impact this would have on the disenfranchised beneficiaries, especially retired beneficiaries that arguably had earned the benefit of dental care. Four years later the efforts of military dentists and the Office of the Secretary of Defense Health Affairs[OASD(HA)] would finally develop an insurance plan that replaced some of this lost retired benefit at civilian insurance rates.[2] The Audit was the first time that the AF Dental Service began to institutionally feel the impact of "business" on military dentistry.

No longer was it enough to provide the best care to as many beneficiaries as possible. It became clear that the Dental Service would need to be efficient and effective to remain the stewards of Air Force dental health.

Brigadier General Jerry Gardner, Assistant Surgeon General for Dental Services and his successor, Brigadier General Theodore Almquist, with clear situational awareness established policies and started programs to position the Dental Service to be competitive. Their foresight and leadership produced effects in two major areas. First, quality care and dental health for The Air Force remained the primary goal. Policies to sustain quality care received strong emphasis. Second, new initiatives were established to get Dental Service leadership to think of their clinics as businesses and to improve efficiency. The Dental Service would work closely with OASD(HA) and the other military dental Services to make the right things happen. The Air Force Dental Service wanted to be the best business alternative available to the Air Force.

Air Force Dental Readiness Assurance Program

The mission of the Dental Service is plainly to keep all of the Air Force in good dental health. To insure that was accomplished the Air Force Dental Readiness Assurance Program (AFDRAP) was implemented 11 August 1995. This program focused the attention of all health care managers on the importance of dentistry in maintaining a high level of health and mission readiness in Air Force members. It brought all contributing programs (Annual Exams; Dental Classification and Monitoring; Dental Clearance Program; and Access to Care) under the umbrella of one program with a well defined purpose and guidance. The annual examinations define the approximate dental health of personnel by placing them in one of three categories. Class 1 means no

treatment is needed. Class 2 means that existing treatment needs are unlikely to result in a dental emergency in the next 12 months. Class 3 means that existing conditions require treatment to prevent a likely dental emergency within the year. An additional category is Class 4 that indicates the member requires an examination to establish one of the above classifications. All three services use this system as a management tool and OASD(HA) uses dental classifications as a metric to reflect military dental health and readiness. AFDRAP clearly defines the primary dental mission, sets policy to accomplish it, and combines all related programs for efficiency and maximum management attention..[3]

AFRES Unit Program Dental Health Assessment

AFDRAP drives active duty dental health efforts, but did not do the same for the Air Force Reserve. Reserve units used the same dental health classification system but did not accomplish annual examinations. Without yearly evaluation of dental health it is impossible to define the status or predict the likelihood of a dental emergency interfering with missions. Reports from deployed active duty dentists during Desert Storm indicated that there was a significant problem with the dental health of the reserve forces.[44]

In early 1995 the AF Dental Service and the AFRES Mobilization Assistant to the Director of Dental Services (now Brig. Gen. Giuseppe Santaniello) conducted a dental health review at four reserve locations. During the review 1611 records (25% of the 6447) were examined at the four locations and evaluated for the accuracy of the dental classifications. Results indicated that the percentage of reservists ineligible for worldwide duty was much higher than units had been reporting (most readiness reports claimed less than 10% non-deployable). Thirty-one percent of the reviewed reserve members were ineligible for deployment and that compares unfavorably to Air Force

active duty forces that are in the range of 7 to 8%. The review found other administrative inconsistencies in classification and identification of dental treatment needs in the reserve units evaluated. Recommendations from this review have resulted in actions that will improve the accuracy of dental classification in reserve units by requiring dental examinations annually and other administrative improvements. The Dental Service took this issue to OASD(HA) and recommendations resulted in an AFRES Dental Insurance plan that may contribute to significant improvement in the dental health and readiness of the Air Force Reserve.[5 6 7]

Clinical Performance Assessment and Improvement

A big step was made to insure that high quality care was delivered in Air Force facilities when the USAF Dental Service Clinical Performance Assessment and Improvement Program (CPA&I) was phased in on 1 January 1996 by the direction of the Assistant Surgeon General for Dental Services. The program builds the matrix for performance measurement, assessment and improvement of dental care in Air Force facilities. The CPA&I program was built with input from leaders in all the dental specialties to incorporate state of the art concepts of appropriate treatment. A dramatic improvement on its parent process, CPA&I incorporates the language and philosophies of the most current health care evaluation methodologies and provides flexibility to meet any unique needs of the individual facility. It is presently state of the art performance assessment in dentistry but constant formal review is planned to sustain its value and currency to promote the best dental care for the Air Force.[8]

Education: the Ultimate Quality Care Insurance

The Air Force Dental Services' most powerful tool to insure quality care is dental education. Education also has true business value as a recruiting tool and as a means to produce dental specialists that are difficult to purchase in a booming economy. World class patient care is the greatest benefit. Air Force Dental Service Education falls into two major categories. First, entry level dental general practice internships (AEGD 1 - after the American Dental Association accreditation system) are one - year - long Air Force sponsored programs that teach military dentistry and bring the students to an excellent level of dental skill and understanding. Graduates are prepared to practice Air Force dentistry anywhere in the world. Second, graduate specialty training in all dental specialties is provided at Lakeland AFB and Travis AFB. The graduates of these programs will fill deployment positions, treat the most difficult cases and serve as both formal and informal teachers throughout the Dental Service.

The quality of the Air Force dental specialists are world class as seen by their qualitative and quantitative success on civilians specialty boards. In 1995 twenty-one Wilford Hall dental residency and fellowship graduates completed 23 research projects. It is standard practice for each group to submit presentations to state, national, and international meetings and it is common for these efforts to be praised in the civilian setting. In 1995 American Academy of Periodontology In-Service Examination results established the Air Force Periodontics Residency as one of the best in the nation. Of 380 residents examined nationally, the five Air Force residents placed 2nd, 3rd, 4th, 5th, and 7th in the nation. Graduates of the Wilford Hall Medical Center dental residencies commonly all score in top positions in their national board exams. In that same year two

Air Force Prosthodontic residents were selected as semi-finalists in the nationally prestigious John Sharry Research Competition sponsored by the American Association of Prosthodontics. Other board successes and individual performance testify to the world class quality of Air Force Dental Specialists and the superior care they deliver to Air Force patients around the world. The Dental Service believes that the education programs are invaluable in providing quality care that far exceeds the standards of the competition, whomever it might be.[9]

Arguably, the Dental Corps on a daily basis relies as much on quality ancillary personnel as any area of the Air Force. In any case the care would be less and of a lower quality without the high quality support. As with any effective business, the Dental Service has a long history of formal and informal training programs to sustain quality support. Most recently the Advanced Oral Hygiene Course was established to train for improved didactic and clinical skills in oral prophlaxis. Graduates gain additional skills to treat dental compromised patients; motivate patients to control disease; learn to recognize pathological conditions; upgrade skills to accomplish comprehensive oral prophlaxis on the most difficult cases and become "super" technicians. The goal is to have at least one advanced trained technician at every facility by 1998 to support disease prevention efforts, provide training, and raise the skills of the support staff.[10]

Initial and continued education is recognized as the way to excellence. The Air Force Dental Service embraces it as the only way to sustain quality care for patients. It would be false economy to reduce the quality of education for short term economic reasons. With education you can pay now or pay later with poor care and a disappointed Air Force. A reduced commitment to education mortgages the future. The Dental

Service corporately understands and aggressively uses education as the best insurance for quality.

Special Efforts - because it's the right thing to do!

The Air Force Dental Service has always over manned over seas facilities to provide enough resources to care for the basic needs of family members. A concerted effort was made to provide "extra" space available care for at least emergency and basic maintenance treatment to the families. Problems arouse when patient expectations for elective and specialty care were greater than the available resources. When demand was greater than resources, family members often found themselves without good alternatives to care in Air Force facilities. After years of failed efforts the political time was right and OASD(HA) supported the Overseas Family Members Dental Program(OFMDP) for implementation by all three Services. The program was initiated in Europe first in response a large number of family member complaints brought on by medical force reductions. On 10 November, 1994 the Air Force Surgeon General approved and signed the United States Air Force OFMDP Implementation Plan for Europe. The plan established procedures required to provide dental support for family members located in USAFE. The goal was for family members to be in an oral health status equivalent to their sponsors through routine use of the Dependent Dental Plan before they went overseas. That would make it possible to add appropriate resources to USAFE facilities to deliver space required preventive, routine and essential specialty care. It would have not been desirable if families neglected care in anticipation of an overseas assignment. Active duty personnel (27 dentists and 54 dental technicians) were assigned against anticipated demand for space required care. Stateside contractors provided civilian dental

teams (27 dentists and 27 dental assistants) to back fill the positions vacated in Air Force clinics as active duty personnel supported the OFMDP. Financial constraints prevented a one for one back fill. After the European plan was started the plan for the Pacific was approved in October of 1995 and implemented in October of 1996. The Pacific plan was similar to the successful European model: active duty personnel (23 dentists and 46 dental technicians) were assigned to selected locations in PACAF and a stateside contractor provided dental teams (23 dentists and 23 dental assistants) the stateside manpower vacancies. The program is very well received by sponsors and their families - it was the right thing to do.[11,12]

Since the Air Force Audit Agency Report of 1993, the Air Force Dental service has drastically reduced the care it provided to retired beneficiaries. In fact, only a few cases were accomplished as part of emergency care or permitted as teaching cases at a training facility. That was disturbing to all the Dental Service from the leadership to those that found themselves explaining the "reason" to the retired members. It was not right. The Air Force Dental Service worked with the sister Services and pressured for a solution. With the help of OASD(HA) a measure was passed in the FY97 Authorization Bill to offer a dental insurance plan to retired military. Without funding the measure found itself under OASD(HA) study of benefits and cost. The plan was contracted to the Delta Dental Corporation and a product is expected in February of 1998. Without government funding the coverage is likely to be a standard commercial plan, possible advantages to the individual from the size of the enrollment base will be lost to the actuarial affect of the more expensive dental care often needed by older individuals. It is only a partial

solution to what is really owed to the retirees but it provides a source of dental health and may be of some help.[13]

Notes

[1] Air Force Audit Agency, *Selected Aspects of Dental Clinic Management*, Report of Audit Project 92051014, 15 December 1993, 3-11.

[2]Col. Laurie Matiasevich Jr., AF Director of Dental Services, address to Air Force Dental Service Program, American Military Surgeons of the United States meeting, Nashville, TN, 16 Nov '97.

[3] Brig. Gen. Theodore Almquist, Assistant Surgeon General for Dental Services, memorandum to all Dental Activities, subject: AF Dental Readiness Assurance Program Implementation, 11 August 1997.

[4] Col Carl Haveman & LtCol George Gaines, Desert Shield/Storm After Action Report to Dental Investigation Service, 16 October 1991.

[5] Col. Gisuppe Santaniello & CMSgt Dale Herrman memorandum to Assistant Surgeon for Dental Services, subject: Unit Program Dental Health Review Team Observations from the Field, 12 April 1995.

[6] Col. Gisuppe Santaniello & CMSgt Dale Herrman memorandum to Assistant Surgeon for Dental Services, subject: Unit Program Dental Health Review Recommendations, 12 April 1995.

[7] TRICARE Support Office, *Reserve Dental Award Number 97-7*, 27 June 1997, 5.

[8] *USAF Dental Service Clinical Performance Assessment and Improvement Program*, HQ USAF/SGD Bolling AFB DC 20332-7050, October, 1995.

[9] History, Office of the Assistant Surgeon General for Dental Services, Bolling AFB DC 20332-7050, Graduate Dental Education,-1995, 3.

[10] Periodontal Therapist Course No. J5A098170-000, PDS Code PSU.

[11] History, Office of the Assistant Surgeon General for Dental Services, Bolling AFB DC 20332-7050, Overseas Family Member Dental Program, 1995, 1 and attach 1.

[12] History, Office of the Assistant Surgeon General for Dental Services, Bolling AFB DC 20332-7050, Overseas Family Member Dental Benefit, 1996, 1.

[13] TRICARE Support Office, *Retiree Dental Award Number 97-19*, 21 October 1997, 13.

Chapter 4

Is the Dental Service a Good Business?

Under the strong leadership of Gen. Theodore Almquist , the Assistant Surgeon General for Dental Services, the Dental Service has taken steps to become a good business division of the USAF Medical Service. Gen. Almquist has transformed a typical government organization with the common "spend all you have" attitude to one that begins to think of best business practices to balance cost and quality. The Dental Service knows it is in competition with other dental care alternatives.

In the last three years the Dental Service has stopped thinking government health care and started thinking best business health care. A number of very important business initiatives demonstrate the paradigm change. The 1994 Tri-Service Comprehensive Oral Health Survey gives the Dental Service a description of the market place by defining the beneficiary treatment needs in considerable detail. This has importance to improvements in the quality of care as well as the business consideration for effective application of resources. Two programs for modernization of record keeping and productivity tracking are under way. First, an improved dental data system will streamline data collection and record keeping and will prove profitable in manpower savings and treatment prevention. Second, to facilitate comparison with private industry, the Dental Service has made the transition from antiquated treatment tracking codes to the American Dental Association

codes, the nation wide system used in the dental insurance industry. Utilization management is a process widely used in the health care business to reduce cost by selecting effective and less expensive treatment methods. Another Dental Service business strategy is to apply these concepts. Like private industry, the Dental Service has taken steps to identify activities that are not efficient and improve upon them through consolidation and reorganization. Most importantly, the Dental service has developed profit models and used them to compare themselves to the civilian alternative - a profit analysis of sorts for the share holders. All of these business actions define an organization that is rapidly transforming itself to more effective and efficient dental care for the Air Force.

Tri-Service Comprehensive Oral Health Survey

The 1994 TriService Comprehensive Oral Health Survey (TSCOHS) gives the Dental Service a clear description of needs in the "market place" by defining the beneficiary treatment needs in considerable detail. This data rich survey initially revealed important information on the oral health status, specific dental treatment needs, readiness status, beneficiary dental utilization and perceived need for care. These data categories were compiled for both new recruits and active duty groups. This first ever Tri-Service dental survey collected data from stratified random samples of 13,050 active duty and 2,711 recruits over all Service branches between February 1994 and January 1995. Clinical examinations were accomplished by trained, calibrated, military examiners at ten sites per Service. Data was directly entered into notebook computers and transmitted electronically for evaluation. The first data evaluation was designed to

epidemiologically compare the active duty that have been in the military system with new recruits interring the Services.

Results for the Active Duty show that when compared to civilians, they have a lower proportion of decayed teeth and a higher annual rate of using dental services. This implies that the military unique, mandatory annual dental examinations is a successful strategy to gain higher levels of dental health. Nearly all (99.2%) of the Active Duty have seen a dentist within the past two years. Though healthier than their civilian counterparts, forty-five percent need some type of restorative care or 125 restorations are needed per one-hundred personnel. Periodontal and prosthdontic care needs increase as age and years of military service increase. These time-intensive disciplines were found to account for three-fourths of the treatment time requirements found in senior Active Duty beneficiaries. Other epidemiological results continue to come from the evaluation of this profession wide unique data base and poses a unique opportunity for the dental Service to evaluate existing policies and develop improved policies to respond to the health needs of the Air Force.

Results from evaluation of new recruits indicate that, as they enter the military, they exhibit higher dental treatment needs than their civilian counter parts. Recruits have a higher proportion of decayed teeth, a greater self-perceived urgency for dental care, and a history of low annual dental utilization rates (38.2% had seen a dentist in the past year). Nearly all recruits needed some type of dental care and roughly one-half were Class 3 (likely to have a dental emergency within a year.) This finding resulted in changes in dental overseas clearance policies and changes in resource application to focus on these treatment needs. Four -fifths of the recruits needed restorations and 352 restorations were

required per one hundred recruits. Sixty per cent needed some type of extraction. Restorative and oral surgical needs account for nearly two-thirds of the time of treatment required by recruits.

A great deal of information remains to be analyzed form TSCOHS. At present it provides timely information on health status and readiness, data-based assessment of the effectiveness of programs and the effectiveness of program changes. It will guide the best use of manpower and financial resources. The high treatment needs of new recruits have already resulted in changes to dental overseas clearance policies and changes in resource application to focus on these treatment needs. Potentially, the data base can provide similar information for each Service, each installation or patient subgroups like flyers. The quality and quantity of dental management information obtained from TSCOHS is unprecedented in dental epidemiology. It is a unique and distinct business advantage to military dental health care. It gives the Air Force Dental Service the capability to make fact based decisions in order to provide the best business options for dental health to the Air Force.[1]

Modernized Record Keeping & Productivity Accounting

Two steps for modernization of record keeping and productivity tracking are under way. An improved dental data system will streamline data collection and dental record keeping and will prove profitable in manpower savings and treatment prevention. Secondly, to facilitate comparison with private industry, the Dental Service has made the transition from antiquated treatment tracking codes to the American Dental Association codes, the nation wide system used in the dental insurance industry.

On 1 October 1997 the Air Force Dental Service began reporting treatment accomplished using the civilian insurance industry standard - the American Dental Association's Current Dental Terminology, Second Edition (ADA Codes.) Left behind was an archaic and inflated system based roughly on the time it took to accomplish the particular dental procedure. Called Composite Time Values (CTVs) the system was created as a way determine facility manpower requirements in a world that rewarded production. Recently, that manpower system was replaced with a population based system built around beneficiary numbers and average beneficiary dental treatment needs. The CTV system was inflated after twenty years of use and, at best, was only an approximation of the time required to accomplish a particular dental procedure. In today's business climate the cost of the procedure has more value for planning and dollar values can be attached to the ADA insurance billing codes. This change supports efforts to make business comparisons between military dentistry and the civilian organizations. It will also facilitate Dental Service business management efforts.[2]

The Defense Dental Standard System(DDSS) is a dramatically improved dental data collection system that will streamline data collection and dental record keeping. DDSS will have connectivity with the medical counter part Composite Health Care System II (CHCSII). This will prove beneficial to physician, dentist and patient as health care information is more available to providers. Costs of DDSS are being controlled by maximizing the use of existing commercial and government applications and by minimizing custom developed software. DDSS will bring a number of capabilities to dental facilities that will improve efficiency and effectiveness. DDSS will improve treatment documentation, workload capture, readiness reporting, scheduling and improve

supply and logistics by identifying changes in inventory just used in treatment. The capability for teledentistry will allow long distance specialty consultations. The data management offered by DDSS will give managers the capability to make real time business decisions, a capability that is common in the civilian industry now. An office automation package will give providers and technicians a standard applications like word processing, spreadsheets, presentation software and E-Mails access. It is anticipated that DDSS will prove profitable in manpower savings and treatment prevention and also improves patient convenience and quality of care.[3]

Utilization Management

Utilization management is a process widely used in health care to reduce cost by selecting effective, but less expensive treatment methods. This is a common strategy in commercial insurance plans and health maintenance organization to make money. Epidemiological assessments are used to evaluate clinical performance, improve the quality of care and increase efficiency(reduce cost.) The Dental Service has a superior data base of epidemiological data in TSCOHS and is looking to utilization management to increase efficiency.

Some utilization related savings have been identified through a review of the Dental Service Report of FY 96. One of the most profitable procedures for civilian dentists is the full crown. Often made from expensive precious metals they can be expensive for patients or insurance companies. It is problematic that there is such a wide range of clinical situations where treatment with crowns is acceptable. Some cases within that wide range can be treated with excellent lower cost quality options. By selecting those lower cost treatments the Dental Service may be avoiding as much as much as $40

million in costs for FY96 over higher cost treatments. Just a beginning, but it demonstrates the potential of utilization management in the business aspects of dental care.[4]

Consolidation of Dental Laboratories for Efficiency

The Air Force Dental Service manages four Area Dental Laboratories(ADL) to manufacturer the appliances (crowns, bridges, partial dentures, dentures, etc.) used in dentistry. Two ADLs are located overseas - one in Europe and one in the Pacific. There are two in the United States (Barksdale, AFB and Peterson Field). The ADL system has been very successful providing excellent quality products at a fair cost to the government.

An evaluation of the efficiency of the Barksdale ADL demonstrated a number of problems. The facility and equipment were old and costs to refurbish the site were high. The Barksdale ADL was the least productive and that could be due to facility problems and to some decreased work load. At the other extreme, it was found that the new "flagship" ADL at Peterson had a enough space to absorb most of the personnel at Barksdale. The Peterson ADL was the most productive. A business decision was made to move the Barksdale ADL mission to Peterson. This consolidation will eliminate seven military and one civilian position. The personnel savings, facility savings and equipment savings are expected to save the Air Force $4.12M over five years and improve dental laboratory efficiency.[5]

The Bottom Line in the Dental Service Business

No business evaluation is complete with out considering the bottom line. How much money did the Dental Service make? For military organizations that is a simpler question

to ask , than to answer. Both sides of the ledger are difficult to define and any approach is open to some criticism. Under the direction of Brig. Gen. Almquist an amazingly good model has been developed in his office.

The Dental Activity Profit Analysis(DAPA) was devised as a methodology for dental managers to evaluate the cost effectiveness of their organizations. It is also a tool for MAJCOMS and Air Staff to evaluate the progress of programs and policy toward best value care. It can contribute to all aspects of local budget management from new equipment purchasing to acquiring outsourcing services. Government organizations still encourage the complete use of all money, rather than spending appropriate to good business and economy. For the most part, military work centers are not encouraged to consider business efficiency while civilian organizations are driven by the bottom line. Then government organizations find themselves being selected for outsourcing based on the civilian cost of the service and under the belief that "the private sector is more efficient." It becomes a self fulfilling prophecy that civilians can do it cheaper. The DAPA should change the way the Dental Service does business before that outsourcing judgment day.

The DAPA uses the Medical Expense and Performance Reporting System (MEPRS) to find the cost of providing care. MEPRS is used for personnel/man-hour reporting and distributes expenses to work centers. This makes MEPRS useful for numerous business decisions to include budgeting, utilization management, budget execution and tracking. From MEPRS dental managers can find the cost of facilities, utilities, depreciation, housekeeping, supplies, equipment, maintenance, and military personnel cost. Almost all costs are distributed by cost center. To make the comparison with civilian providers

complete it was necessary to add approximate costs of malpractice insurance. Arguably, MEPRS overcharges the dental cost center. Many costs are assigned by size rather than usage. For example, often the dental cost center is charged for a share of the pharmacy cost based on the per cent of dentists against the total number of practitioners. This overhead would be much less if the charge was for usage because dentists tend not to use pharmacy services as much as other providers. There are other examples but the important point is that MEPRS represents a robust and complete overhead cost.

The actual value of the services rendered by the Dental Service is calculated from civilian fee costs based on the American Dental Association codes and procedures. These fees are applied to data on dental procedures that is collected monthly and monitored by the Dental Service. The civilian fees were discounted 30% to parallel the large civilian dental preferred provider organizations - United Concordia for example. This model provides an accurate picture of expected gross income from like services in the US civilian market. If overhead (MEPRS) is subtracted from the gross earnings in FY95 the cost savings or "profit" is **$35.5 million**. In FY 96, the Dental Service made **$40.8 million** .and in FY 97 **$58 million** [6] A three year trend of improving efficiency is notable from Figure 1.

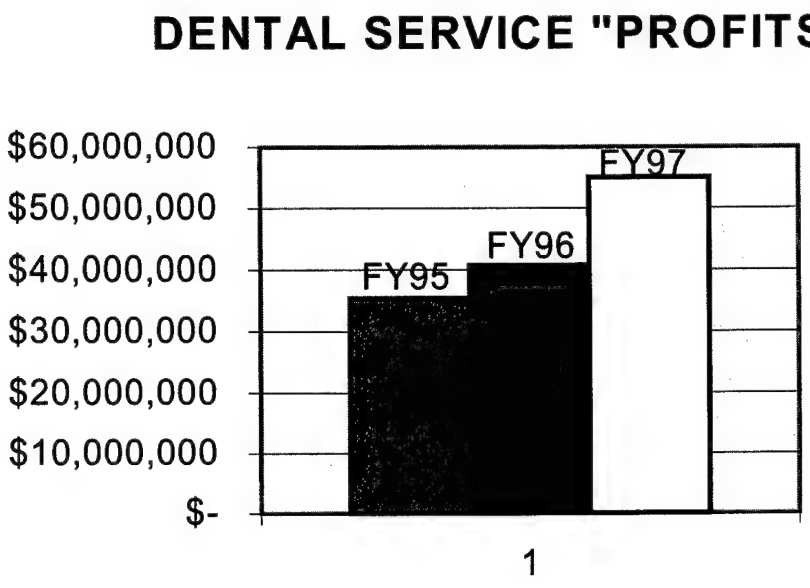

Figure 1. Dental Service "Profits"

Those "profits" represent very successful bottom line and a distinct trend toward further improvement. The business approach to military dental care started slowly after the 1994 Air Force Audit and picked up considerable speed during FY 95. By FY96 most dental managers were thinking about the business aspects of their jobs and all knew that the MAJCOMS and Air Staff expected them to manage for quality and best value. Not every dental facility was "profitable" as purchases for modernization ate up their bottom line, but each purchase was made wisely and frugally. During this time the Dental Service has changed the way it thinks about money. In years past dental managers would pride themselves in being the best and fastest in the hospital with ways to spend fall out money. Now dental managers spend carefully to deliver quality at the best price. They are better stewards of Air Force money and Air Force dental health.

The Dental Service Achilles Heal

As the Dental Service applauds its business successes, a disaster looms that will force privatization or outsourcing without debate or comparisons of best business practices. Serious recruiting shortfalls over a number of years have kept manning below minimum levels. Most facilities are at least one or two providers short and that has had a serious impact on small and some medium sized clinics. Some Air Force dental facilities have started major contracting efforts for civilian care to meet the health needs of their patients. This shortage of dentists will force outsourcing by default unless resolved.

Military dentistry represents a particularly good career choice when the economy is poor and interest rates are high. During financially difficult times most people place preventive and elective dental care low on the hierarchy of needs. High interest rates make it difficult to pay equipment debts in new practices. It is difficult for dentists to prosper and military service is a good alternative. During prosperous times people can afford to spend money on their health so the demand for once deferred elective and esthetic treatments returns. In recent years the strong US economy has created many lucrative opportunities for dentists. The income of civilian dentists has constantly risen over the last few years while military salaries have remained relatively unchanged for many years. The military can not compete with these civilian economic and life style advantages, so recruiting and retention suffers.[7]

All three dental Services are experiencing problems with recruiting and retention. Working with the American Association of Dental Schools the Services found that there were three issues affecting recruiting. First the pool of eligible Dental School candidates was smaller in absolute numbers and a growing number of the graduates were foreign

nationals with little interest in US military service. Other negative demographics were also identified. Secondly, graduates were found to have debts averaging over $50,000. The third was the comparatively poor salary offered by the military which compounded the problems with debt repayment. From a junior officer in USAFE, *I will be paying on my loans for the next 25 years! My civilian counterparts will be able to afford to pay off their loans far more quickly than I...if I were to remain in the military.* It was found that the two best recruiting tool the military possessed was a dental school scholarship system and dental education opportunities. .[8]

A strategy emerged to reverse the recruiting problems with incentives that reduced the dental graduates debts. Immediate increases in scholarship programs would alleviate problems but it would be three to four years before the graduates joined the military. An accession bonus would stimulate recruiting until dentists started coming out of the scholarship programs. With help from the American Dental Association a $30,000 accession bonus and some improvements in bonus pays for junior officers passed congress for FY96. The impact of the accession bonus remains somewhat disappointing but the scholarships have been sought be excellent quality students.

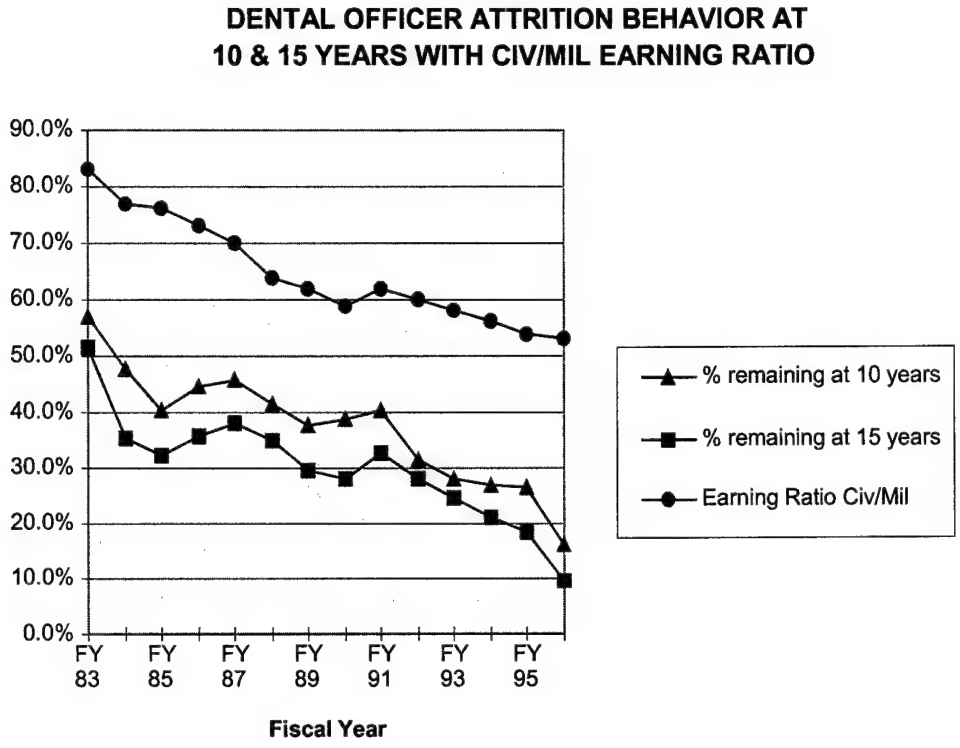

Figure 2. Dental Officer Attrition Behavior

Retention becomes especially critical when recruiting can not easily replace departures. Working with the Services, Dr. John Bircher an analysts at OASD(HA) defined a relationship between civilian dentists' earnings and military dentist salaries, and attrition behavior of military dentists. A summary of his findings is seen in the Figure 2 below. The increasing rate of separations is expressed as the per cent of recruits that have remained 10 years. For example: in FY 82 about 58% of the accessions had stayed to the year point; while in FY 96 only about 18% of the accessions from FY 86(10yrs) were still on board. This means simply that dentists are leaving faster than they can be replaced.

The decreases in retention parallel the reduction of military dentist pay as a percentage of what their civilian counter parts were making. The pay differential was

greatest for dental specialists. The military was not successfully competing with the civilian opportunities.[9]

The solution seemed to be monetary incentives that could be focused on the areas of greatest need. The physicians have a pay system that does just that and allows pay changes based on the needs of the military and effects of the civilian market place. Such a measure was passed for dentists to be implemented in FY98. The effect of these measures is yet to be realized but without improved recruiting and retention the Dental Service will not be successful with any of its business strategies.

Notes

[1] Department of Defense (Health Affairs), *1994 Tri-Service Comprehensive Oral Health Report-Active Duty Report, June 1995*, NDRI Report No. PR-9503.

[2] Lt. General Charles Roadman II, AF Surgeon General, Policy 97-004: Transition from Composite Time Values to American Dental Association Codes for Reporting Dental Workload, 23 August 1997.

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[4] Lt. Col. Gerry Caron "Dental Utilization Management," address to Air Force Dental Service Program, American Military Surgeons of the United States meeting, Nashville, TN, 16 Nov.'97.

[5] Col William Taylor, Costs Associated with the Consolidation of Barksdale Area Dental Laboratory with Peterson Area Dental Laboratory and Lackland Prosthetic Services Center. Staff study, 18 December 1996.

[6] Lt. Col. Gerry Caron "Introduction to Dental Business Management," to Air Force Dental Service Program, American Military Surgeons of the United States meeting, Nashville, TN, 19 Nov. 97.

[7] H. Barry Waldman, "What About Dental Economics for the 1990s?," *CDA Journal*, May,1993.

[8] Capt. Daniel Haberman, AF Junior Dental Officer of the Year, "Writing on the Walls of the Trenches - Quotes from around the USAFE Theater", presentation to Dental Plans and Programs, 17 April 1997.

[9] Department of Defense(Health Affairs), *Military Dentists Special Pay Study,* February.1997 p.6.

Chapter 5

The Competition

At present there are three activities in Air Force Dental clinics that serve as new ways of doing business. Admittedly, the family member insurance plan represents a privatization activity but considerations here will be for those activities that significantly alter the way care is delivered to Active Duty beneficiaries. The largest and most mature activity is the mostly civilianized clinic in Denver Colorado--Buckley. Two other efforts are underway that are in response to manpower shortages caused by unsuccessful recruiting and degraded retention. These have been started at Robins, AFB and Tinker, AFB and differ in scale and some what in concept.

Buckley

The BRAC closure of Lowry AFB and Fitzsimons Army Medical Center left approximately 2000 active duty AF in the Denver area without a dental treatment facility. The Air Force population will stay relatively stable for a number of years. A significant number of Army and Navy personnel are also present. Considering a number of options along with political and economic issues, the Air Force Surgeon General decided to experiment with privatization of Active Duty dental care.

A fixed price requirements contract was awarded to Dentrust Dental International Inc. of Richboro, PA. On 26 February 1997. Dentrust had some past experience

delivering institutional care in penitentiaries and made an extremely competitive bid compared to two established local dental practices. Services were to start 1 June 1997 and continue through 30 September 2001. The first five month cost was projected to be $421,734 and the five year cost was projected to be $5,580,084. Diagnostic, preventive and emergency care was capitated, meaning those services were paid for at a fixed rate per member, not changing with treatment frequencies. Restorative dentistry and specialty care was contracted for on negotiated fees for each service.

One dental officer was assigned, hand picked and board certified in general dentistry. Two dental technicians were also assigned. The dental officer as a Primary Care Manager, accomplished the required annual examinations, provided oversight of treatment quality and with the technicians, accomplished military specific administrative and clinical activities. The Air Force dentist also had responsibility for review and approval of complex treatment plans as an additional control on the quality of care. Unlike the medical contracts in TRICARE, the Dental Service has intensive supervision over the care provided by civilians at Buckley.

The Buckley dental clinic has been open for about six months and has been characterized by steep learning curves for both the civilian contractor and the military Primary Care Manager. Col. Steve Moore, Command Dental Surgeon for Space Command points out "*.literally every aspect of this project has required intense and continuous scrutiny, and has necessitated an inordinate time expenditure by AF personnel.*" The problems have been many. Initially, contractor caused delays made it impossible to verify credentials of civilian providers. The turn over rate of civilian workers was rapid and constant retraining was extremely time consuming. A 42%

civilian providers error rate in documentation required constant review and correction by Air Force personnel. Civilian reporting of billed procedures is likely to be at least inaccurate and possibly fraudulent. Excessive dental sealant procedures, excessive tobacco counseling and possible double procedure coding are all issues under review. No endodontic referral capability was provided by the contractor and there are numerous instances of excessive charges for dental prophylactic procedures. Issues have made it necessary to request AFSOI involvement on 29 October 1997 and a complete project evaluation will be submitted through Col. Moore to the Surgeon Generals Office on 1 January 1998.

To date the Buckley project has been disastrous in many ways but these problems have been transparent to the patient population. This one silver lining to an other wise dark cloud was the result of great effort by the Air Force personnel assigned. Without the Dental Service oversight, it would not be unreasonable to believe that an economic and treatment disaster would have emerged. The Buckley project must significantly improve to stand as a viable model for delivering dental care at other locations.[1]

The Small Contracts

Serious dental recruiting shortages have left dental clinic managers short of the personnel to deliver adequate dental care to meet base needs. Without sufficient dentists they have looked to other ways to take care of patients. Two outsourcing programs have been implemented, a fairly large one at Tinker AFB and a more limited program at Robins AFB. Both programs have selectively referred cases to off base civilian dentists and both programs are characterized by intensive oversight by military dentists.

In 1993 the Tinker Dental Clinic lost two military dentists that could not be replaced. Over the next few years they experienced a rising Class 2 rate (patients that had treatment needs but were not likely to have dental emergencies in the year.) In 1995 these numbers continued to rise and it became more difficult to be treated as appointment waiting times increased.. Active duty service members were not able to receive routine dental care in a timely manner.

Blanket purchase agreements for off base civilian care were selected as the best way to finance the outsourcing as a fast solution to a growing problem. Dental clinic space limitations and a cumbersome contracting process made the use of in-house contract dentists the discarded option. A statement of work was created and a provider network was established. Considerable effort was applied to this process and a management infrastructure (dental referral office) was created to support administrative requirements to provide connectivity between Air Force dentistry and the civilian 22 dentist preferred provider system (PPO). The Tinker AFB Dental Care Outsourcing Project started 1 July 1997.

In the first months of the project a umber of observations were made by the dental manager. Professional review, resolution of treatment conflicts, and support of the dental referral office proved to be a surprise cost in time and money for the project. The dental manager found it wise to carefully select straight forward cases for referral to the PPO with the intent to reduce confusion and cost. For administrative simplicity and to reduce the potential for errors, cases that involved flyers and sensitive duties were treated in the Air Force facility. It was found that medical legal concerns by dentist in the PPO tended to drive them to "waste time" re- examining patients and they often requested additional

x-rays. The patient complaint of most significance seemed to relate to the time required to travel to the private practice site. Patients averaged spending 24 minutes more traveling to the civilian practices than to the Air Force Clinic. In the first two months 308 patient referrals were made at an average cost of $177.57 per patient in costs for just procedures accomplished in the PPO.[2]

The Supplemental Dental Care Program at Robins AFB was also initiated in response to a shortage of dentists assigned. Fifty per cent below required manning, access to care deteriorated in 1996 to the point that it took 60 days to get a restorative dentistry appointment. This represented a real threat to dental readiness and led to the decision to purchase supplemental care with a blanket purchase agreement. The program developed at Robins AFB was designed to specifically fill the dental clinics resource shortfall. Cost control was an important consideration and the overhead of a large administrative infrastructure was avoided

Contracting advertised for competitive fee schedule bids and a contractor was selected on a for best but decision. Current clinical requirements drove selection of cases to be referred - as of Nov 1997 non-rated patients with routine restorative needs were offered the alternative to be treated downtown. All rated individuals are treated on base to insure the accuracy of judgments associated with health care affecting flying. Patients may turn down the supplemental care and will be treated in the AF clinic. Complicated and expensive cases are accomplished on base to control cost.

The Dental manager at Robins AFB has noted that off-base comprehensive and dental specialty care is particularly costly. There is limited prospective influence over the quality of care but retrospective evaluations have worked. Off-base care is inconvenient

for patients and costly in the additional time required to access care. Administrative costs have been low to the facility for this small but very specific contract, costing $95.84 per patient.[3]

It is difficult to compare these outsourcing efforts because of difference in size. The Robins program seems to be an overflow measure that demonstrates the flexibility to support a variety of staffing shortages at low cost with little administrative support. The Tinker project represents broad outsourcing of dental services in a formal PPO. With that comes considerable administrative and financial cost. There are some common themes in the programs. There is real cost to patients and their parent organizations to add additional time away from duties to seek health care. Both facilities opted to keep critical military issues regarding flyers and special duty members from the civilians. Both facilities closely managed the type of cases outsourced to control cost and to some degree quality of care. Both programs are little more than six months old and though some negative trends may be visible the success of failure or either is not evident.

Notes

[1] Col. Stephen Moore, Command Dental Surgeon AF Space Command,, "Buckley," to Air Force Dental Service Program, American Military Surgeons of the United States meeting, Nashville, TN, 19 Nov. 97.

[2] Col. Dave Lipsinic, 72nd Dental Squadron Commander, "Outsourcing Dental Care," to Air Force Dental Service Program, American Military Surgeons of the United States meeting, Nashville, TN, 19 Nov. 97.

[3] Col. Shannon Mills, 78th Dental Squadron Commander, "Supplemental Dental Care Program," to Air Force Dental Service Program, American Military Surgeons of the United States meeting, Nashville, TN, Nov. 97.

Chapter 6

Conclusions

The purpose of this paper is to evaluate existing outsourcing activities and compare them to the value of the uniformed United States Dental Service. Solid information is available regarding the outsourcing programs at Buckley Clinic, Denver, Colorado Robins AFB and Tinker AFB. In the admittedly, short lives of these outsourcing projects some trends seem to be evident. Very intensive oversight by the Dental Service is necessary to assure that problems are resolved and remain invisible to the patients. There seems to be a very real possibility that the Air Force could loose control of military dental care and costs to the unsupervised civilian industry. Outsourcing to off-base civilian providers tends to be costly in patient time away from duty and a certain amount of civilian reexamination/revaluation represents a costly inefficiency. There is a risk of degraded services, uncertain quality and more costly care. Are these problems resolvable growing pains or do they represent a conflict between two different health care cultures with different motivations: Profit vs. Service? I have admitted some bias in this comparison so it is worth quoting a distant but still very interested leader. As Commander in Chief United States Pacific Command to the House Appropriations Committee Subcommittee on National Security, Admiral Prueher presented a statement on the complicated security issues in the Asia-Pacific environment. Realizing the value

of people to his efforts, he felt is was important to add, "As we 'right-size' the medical community, we must ensure we preserve an affordable, accessible health care system with emphasis on prevention of disease and efficient care. We should not allow privatizing of some services to become a reduction in the quality of care or a windfall for insurers." The Admiral has warned us about many of the problems we see emerging from medical outsourcing/privatization efforts.

It is possible that thorough contract and business negotiations many of the observed problems can be resolved to some acceptable degree, but it seems that the Air Force Dental Service offers so much more. The information presented about the Air Force Dental Service clearly describes a number of worthy accomplishments but it is more important to appreciate that the discussion of these activities describes an organizational culture with integrity, service and excellence in the job of providing best value health care. The Air Force gets more in services than the sum of the business parts and the search for cooperate or personnel profits will never drive decision making. The Dental Service is a responsible and accountable culture that will predictably continue to take actions that are in the best interest of the Air Force. The right things will continue to be done.

As a matter of recommendations, the Outsourcing and Privatization projects must continue and be evaluated as an alternative way of delivering quality dental care while the Dental Service should continue to be economically responsible in order to deliver best value care to the Air Force. Future business decisions should consider costs but also weigh the value of accountability, service, excellence and integrity in the Dental service culture as valued characteristics that may be impossible to purchase elsewhere. In rapidly

changing times there is a real risk that decisions appropriate to gain solutions for medicine may not be as good for dentistry. Air Force dentists must be involved in Dental Service policy making to perpetuate the success already achieved. Dental flag officers have provided strong leadership over a number of years as Deputy Surgeon General for Dental and have been critical to the successes of Air Force Dentistry described here. Decisive centralized leadership has been as important to the dental product line as it has been to those most involved in medicine - medical doctors, nurses, medical administrators and the biomedical scientists. Given the right tools and opportunities the Dental Service will compete successfully and fulfill their stated vision - ***Providing Best Value Dental Service for Global Readiness***

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